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## **Changing Media Structures and the Role of Reporting for the Perception of Natural Hazards and Risk Management**

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Posted at the Zurich Open Repository and Archive, University of Zurich  
ZORA URL: <https://doi.org/10.5167/uzh-9330>  
Book Section

Originally published at:

Zemp, H (2008). Changing Media Structures and the Role of Reporting for the Perception of Natural Hazards and Risk Management. In: Amman, W J; Pollet, M; Häkkinen, E; Hoffer, G; Wolfensberger Malo Rivera, M. IDRC Davos 2008. Davos, Switzerland: Global Risk Forum GRF Davos, 744-747.

relevant issues: For example, the European Commission's financed project MOVE (Methods for the Improvement of Vulnerability Assessment in Europe), the project Climate Change in South Tyrol funded by the Province of Bolzano and the EEA's (European Environmental Agency) project Climate Change Impacts and Adaptation in the European Alps.

#### CONCLUSIONS

Global drivers, such as climate change, in combination with other regional and local drivers such as urban sprawl, increased traffic volume and tourism put Alpine regions under pressure and call for pro-active strategies. An integrated regional vulnerability assessment followed by the development of regional adaptation strategies is highly recommended as a measure in preparing for the challenges to come. The methodology to be developed should consider transferability (applicability to other regions), combine quantitative and qualitative approaches, take into account multi-exposure and multi-risk factors and be developed in close collaboration with the stakeholders and authorities responsible for translating strategies into practise.

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## Changing Media Structures and the Role of Reporting for the Perception of Natural Hazards and Risk Management

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**Keywords:** Disaster coverage, media change, natural disaster, risk perception, risk management.

#### INTRODUCTION

Almost daily, the media report on disasters occurring somewhere in the world. Undoubtedly, most of what we know about disasters, such as floods or tsunamis, and what shapes our awareness and perception of threats like climate change, SARS or bird flu, stems from modern media reporting. The media also play a key role in risk communication and management of natural hazards and crises. By informing and warning the citizenry, they decisively influence the perception of these phenomena, and the individual and collective cognitive and emotional responses to

them. The media therefore must be included in the risk discourse in order to understand the environmental awareness of the public. This article is based on research findings from a content analysis of media coverage of natural hazards in Switzerland. This longitudinal analysis of how disasters are covered in various print media throughout different time periods is unique in its scope and focus. The results provide new insights into the routines of news media during natural disasters, specifically their topic selection and presentation. With regard to the overall goal of risk reduction, risk management and the planning of how to deal with present and future disasters must incorporate the media as well as unintended effects of their news coverage. This paper concludes with suggestions for the successful adaptation of risk communication to these circumstances.

#### THEORETICAL BACKGROUND

In modern societies, risk awareness – especially attention to natural disasters – has significantly grown in the last four decades, probably in connection with global concerns about climate change. This increase not only results from developments such as change of societal values and accumulation of scientific knowledge on environmental issues, but also from the mass media growing into relevant actors in identifying environmental issues and disasters. Hence, in order to investigate public risk discourses in varying social settings, we must include the news media as powerful vehicles for public communication.

News media need to be viewed from two perspectives. On the one hand, media fulfil their social function by providing the public or disaster prevention organizations with information, i.e. they are crucial in warning those who may be affected. The mass media also influence the images we have of local, national, or global, immediate and long-term risks or disasters. The last four decades, on the other hand, have witnessed an unprecedented rise in economic pressure causing the former public service ethos of journalism to be replaced by market and profit orientation. This ongoing process is driven by developments such as globalization, market concentration, product diversification and technological progress. It has a profound impact on what is considered newsworthy and how news is presented. This point deserves particular scrutiny. From the journalistic point of view a natural disaster has all the ingredients for the perfect media event: it provides the opportunity to tell dramatic and sensationalist stories employing compelling visuals to attract readers' and viewers' attention. To increase sales and ratings is essential to a media business that wants to survive in a competitive media world. However, a market-oriented coverage may significantly alter disaster and risk communication. It determines which issues are selected, what voices are heard and which style of coverage dominates. In consequence, such reporting prioritizes emotive factors, the personal, the visual, the sensational and the dramatic. Consequences emerge on two levels. Firstly, the news media, rushing in to be first, may interfere with or disrupt official agents or emergency workers at a given disaster scene. Secondly, dramatic and visually compelling disaster reporting may in the long run affect the public's risk perception, decision-making or even behaviour during crises.

Yet, the precise effects of disaster reporting together with these 'new' risks of media interventions have, to date, hardly been noticed by the authorities and organizations concerned with risk and crisis management. It is important that these institutions take the operational logic of the media and unintended effects of news reporting into account when planning risk communication.

#### THE STUDY

The content analysis investigates the coverage of disasters in various print media and in different time periods. It centers on nine flood events of equal magnitude, which occurred in

Switzerland between 1910 and 2005. Four major Swiss daily newspapers have been selected for the sample – Neue Zürcher Zeitung, Tages-Anzeiger, Luzerner Zeitung, and the tabloid Blick. The flood reporting is analysed from 1910 to the recent flood in 2005, except for the Blick coverage, which dates back to 1978. This sample includes a wide spectrum of quality and tabloid reporting, represents different political alignments, and features a varied geographical scope (regional, national and international). Text and photographs were coded for variables like key issues, actors, frames of risk perception, people affected, etc. Further coding emphasized changes in media risk coverage, e.g. visualization, dramatization, and negativity. The analysis also measured the space allocated to text and photographs. By comparing media reporting on floods at the beginning of the 20<sup>th</sup> century and 21<sup>st</sup> century, the study traces changes of what is considered a “natural disaster” and how specific media effects influence the notion.

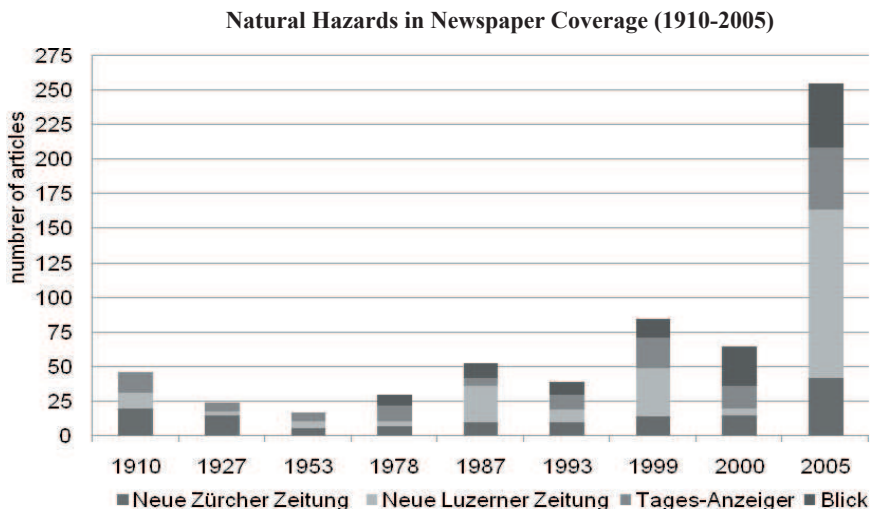


Fig. 1: Newspaper Coverage of Nine Flood Events from 1910 to 2005 in Switzerland

The content analysis shows a general increase in newspaper coverage. This increase not only reflects the growing environmental awareness and risk knowledge in society specifically since the 1970s, but also the news media’s growing market-orientation which turns natural disasters into sellable media events. In sharp contrast to the former public service ethos, the strongly emotional and dramatic content of disaster reporting is likely to evoke more, but short-lived media attention to recent weather extremes and the effects on individuals. Human interest as a former side issue has made its way from tabloids to the front page of prestigious quality newspapers and replaced broader considerations of the general fate of flood victims.

Another effect of the high importance and heavy increase of visual communication over the last few decades is the loss of space for text. In order to compete with the emotional impact of TV, pictures in newspapers have to be attractive. Today’s coverage of flood events entails more pictures that occupy a significant portion of the space available. The focus is mainly on people, whereas images of objects are rare. Coverage with heavy emphasis on the visual surpasses the emotional impact of the written word. The trend toward emotional, dramatic and sensational disaster coverage not only affects the visibility of natural disasters, and risk perception in society, but also responses to these risks.

## CONCLUSIONS

What in disaster reporting is considered “fit to print” implies that news production has over the last few decades been abandoning traditional public service norms of disaster coverage along with gradually changing the reconstruction of disaster realities. The media’s market orientation today steers the attention to singular natural disasters. Even a fairly localized disaster can become a world media event. Mass media have become powerful actors in shaping perceptions and interpretations of catastrophic events. These findings suggest two lessons for risk managers and decision-makers dealing with disasters and crises creating conditions of extreme urgency and uncertainty. First, the media must be acknowledged as important actors in the prevention of death, injury and damage. They disseminate essential information to affected publics and potential victims. At the same time, the media’s economic interests, reflected in dramatic headlines and exclusive pictures, can trigger panic, additional but avoidable damage, distorted pictures of reality or the loss of a given country’s reputation in a global media world. How information on disasters is passed on is as crucial as the judgements and decisions made in disaster situations. Policies aiming at risk decrease and preventive measures need to consider the positive and negative impacts of media reporting.

Second, acknowledging these positive and negative influences involves monitoring of media reporting and cooperation with media organizations. Preparedness encompasses differentiated fine-tuning of all activities involved in disaster planning and relief, including those of the media. People and organizations commissioned to assess risks and deliver relief in disaster situations need specific training of media skills. Such provisions will help risk and disaster agencies to address the information needs of media consumers and potential disaster victims. Disaster prevention must include awareness of the operational logic of the media, both on the level of content and ensuing effects, and requisites of journalistic work, among others access to disaster sites, to authoritative and alternative information.

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